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MEINCKE DIAZ, SUSANNA M				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/941,491

Applicant(s)

TEAGUE ET AL.

Examiner

Susanna M. Diaz

Art Unit

3692

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2007 and 31 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 10-14 and 25-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 15-24, 29 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This non-final Office action is responsive to Applicant's election filed May 14, 2007 and the response to the request for information under 37 CFR § 1.105 filed January 31, 2008.

On May 14, 2007, Applicant elected Species I (claims 4-9 and 20-24) without traverse. Claims 10-14 and 25-28 (directed toward non-elected Species II) stand as withdrawn. Claims 1-3, 15-19, 29, and 30 are generic.

Claims 1-9, 15-24, 29, and 30 are presented for examination.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 16-24 and 29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Comiskey explains that mental processes *per se* are not statutory under § 101. Mental processes must be tied into some other category of statutory subject matter in order to be potentially patentable under § 101. *Comiskey* specifically states, "However, mental processes -- or processes of human thinking -- standing alone are not patentable even if they have practical application." (See *In re Comiskey*, 84 USPQ2d, at 1678) *Comiskey* continues with the rationale that "the patent statute does not allow patents on particular systems that depend for their operation on human intelligence alone, a field of endeavor that both the framers and Congress intended to be beyond

the reach of patentable subject matter. Thus, it is established that the application of human intelligence to the solution of practical problems is not in and of itself patentable." (See *In re Comiskey*, 84 USPQ2d, at 1679) Claims 16-24 and 29 are directed toward a mental process that is totally reliant on the operation of human intelligence alone; therefore, claims 16-24 and 29 do not even fall into one of the statutory categories recognized as patentable under 35 U.S.C. § 101.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-9, 15-24, 29, and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the preamble, claim 1 recites "a process...for predicting an opening index price," yet the body of the claim recites "calculating the predicated opening index price." There is no antecedent basis for "the predicated opening index price." Does the "predicated opening index price" in the body of the claim refer to the predicted opening index price in the preamble? If not, what is a "predicated" opening index price? Claim 9 also recites "said predicated opening index price"; therefore, the same issues arise in claim 9.

In the preamble, claim 16 recites "a process for predicting an opening index price," yet the body of the claim recites "calculating a predicated opening index price."

There is no antecedent basis for "the predicated opening index price." Does the "predicated opening index price" in the body of the claim refer to the predicted opening index price in the preamble? If not, what is a "predicated" opening index price?

In the preamble, claim 17 recites "a method for predicting an opening index price," yet the body of the claim recites "calculating the predicated opening index price." There is no antecedent basis for "the predicated opening index price." Does the "predicated opening index price" in the body of the claim refer to the predicted opening index price in the preamble? If not, what is a "predicated" opening index price?

In claim 30, it is not clear what the metes and bounds of "the predicated opening index price" are nor is there antecedent basis for this phrase.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3, 15-19, 29, and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Ciampi et al. (U.S. Patent No. 7,167,837).

Ciampi discloses a process, executing on a computer, for predicting an opening index price of a security index that includes at least two discrete securities, the process comprising:

[Claim 1] a trade monitoring process for monitoring at least a portion of the trading of said discrete securities that occur outside of a regular trading session (col. 5, lines 1-14; col. 6, lines 5-39); and

a closing price variation calculation process, responsive to said trade monitoring process, for calculating the predicated opening index price of the security index for the beginning of the next regular trading session with respect to a closing index price of said security index at the end of the previous regular trading session, wherein said index prices are indicative of a cumulative value of said discrete securities (col. 6, lines 5-67; col. 7, lines 30-38; col. 8, line 32 through col. 11, line 33; claim 8 of Ciampi);

[Claim 2] an index definition process for defining said security index including at least two discrete securities (abstract; col. 1, line 57 through col. 2; col. 3, lines 58-67; col. 4, lines 4-6, 32-34, 39-41; col. 7: table 1; col. 11, lines 19-33);

[Claim 3] wherein said trade monitoring process is configured to monitor at least a trade price of each monitored trade of said discrete securities (abstract; col. 1, line 57 through col. 2, line 6; col. 3, lines 58-67; col. 4, lines 4-6, 32-34, 39-41; col. 7: table 1; col. 11, lines 19-33);

[Claim 15] wherein said trade monitoring process includes a trade filtering process for filtering bad trades that occur outside of a regular trading session (col. 5, lines 17-40 – Prices of trades are eliminated when such prices are deemed to be less significant to

the overall calculations. In effect, the elimination of certain prices filters out trades that are deemed "bad" in term of statistical significance).

[Claim 16] Claim 16 recites limitations already addressed by the rejection of claims 1 and 2 above; therefore, the same rejection applies.

[Claims 17-19, 29] Claims 17-19 and 29 recite limitations already addressed by the rejection of claims 1-3 and 15 above; therefore, the same rejection applies.

[Claim 30] Claim 30 recites limitations already addressed by the rejection of claim 1 above; therefore, the same rejection applies.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4-9 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ciampi et al. (U.S. Patent No. 7,167,837), as applied to claims 1, 3, 17, and 19 above, in view of the Securities and Exchange Commission's release no. 34-41112, file no. SR-CBOE-99-05, entitled "Self-Regulatory Organizations; Order Granting Accelerated Approval of Proposed Rule Change and Notice of Filing and Order Granting Accelerated Approval of Amendment No. 1 to Proposed Rule Change by the

Chicago Board Options Exchange, Incorporated Relating to Listing of Options on the Dow Jones E*Commerce Index" (herein referred to as E*Commerce Index).

[Claims 4-9] Ciampi does not explicitly disclose that said security index is a market capitalization weighted index and the cumulative value of the discreet securities is a market capitalization; however, Ciampi performs its analyses on indexes such as the S&P 500 and the NASDAQ 100 (col. 6, lines 27-31), both of which are known to be capitalization-weighted indexes. Furthermore, E*Commerce Index discusses how market capitalization weighted indexes are known and may be determined as follows:

The E*Commerce Index is calculated on a "modified capitalization-weighted" method. This method is a hybrid between equal weighting (which may pose liquidity concerns for smaller-cap stocks) and weighting (which may result in two of three stocks dominating the index's performance). Under this method, the maximum weight for any stock in the Index will be set to 10%, or "capped," on the quarterly rebalancing date. The weight of all the remaining stocks shall be market capitalization weighted. Thus, the weights of these remaining stocks are not "capped." For stocks which are not "capped," index shares will equal "the company's outstanding common shares. For stocks that are "capped," index shares will equal their maximum weight, multiplied by the adjusted total market capitalization of the Index, divided by the stock's closing price on the rebalancing data. The index's adjusted total market capitalization is the total outstanding market capitalization adjusted to reflect the combined weight of all of the "capped" stocks." (E*Commerce Index: ¶ 14)

The E*Commerce Index comprises stocks traded through the facilities of NASDAQ (E*Commerce Index: ¶ 6). The values of the E*Commerce Index are calculated and disseminated in accordance with SEC rules (¶¶ 16-19). E*Commerce

Index makes it clear how market capitalization weighted indexes, such as the ones disclosed by Ciampi, are commonly valued based on the cumulative value of the discrete securities, or market capitalization (as recited in claim 4); therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi to explicitly handle its market capitalization indexes such that the cumulative value of the discrete securities is a market capitalization (claim 4) in order to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

Furthermore, regarding claim 5, Ciampi does not explicitly disclose that said closing price variation calculation process comprises a closing index market capitalization process for calculating a closing index market capitalization value for said security index, wherein said closing index market capitalization value is the market capitalization value of said security index at the end of the previous regular trading session; however, as seen in ¶ 14 of E*Commerce Index (cited above), the valuation of the index is based on each stock's closing price on the rebalancing date. Also, "market capitalization," by definition, is a measurement of corporate or economic size equal to the stock price times the number of shares outstanding of a public company. Therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi such that said closing price variation calculation process comprises a closing index market capitalization process for calculating a closing index market capitalization value for said security index, wherein said closing index market capitalization value is the market capitalization value of said

security index at the end of the previous regular trading session (claim 5) in order to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

Regarding claim 6, Ciampi does not explicitly disclose that said closing price variation calculation process includes a current index market capitalization process for calculating a current index market capitalization value for said security index, wherein said current index market capitalization value is the current market capitalization value of said security index; however, as seen in ¶ 14 of E*Commerce Index (cited above), the current valuation of the index is based on each stock's closing price on the rebalancing date. Also, "market capitalization," by definition, is a measurement of corporate or economic size equal to the stock price times the number of shares outstanding of a public company. Therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi such that said closing price variation calculation process includes a current index market capitalization process for calculating a current index market capitalization value for said security index, wherein said current index market capitalization value is the current market capitalization value of said security index (claim 6) in order to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

As per claim 7, Ciampi does not explicitly disclose that said current index market capitalization process includes a discrete security market capitalization process for calculating a discrete market capitalization value for each said discrete securities

included in said security index, wherein each said discrete market capitalization value is the product of the total number of outstanding shares of each discrete security and the trade price of said discrete security, wherein the trade price represents the last trade value of the discrete security; however, as seen in ¶ 14 of E*Commerce Index (cited above), the current valuation of the index is based on each stock's closing price on the rebalancing date and "index shares will equal the company's outstanding common shares" and then certain index shares are multiplied by the adjusted total market capitalization of the Index ("market capitalization," by definition, is a measurement of corporate or economic size equal to the stock price times the number of shares outstanding of a public company). Ciampi and E*Commerce Index both discuss the use of a closing price to assess a current or predict an opening valuation of the index (as discussed above); therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi such that said closing price variation calculation process includes a current index market capitalization process for calculating a current index market capitalization value for said security index, wherein said current index market capitalization value is the current market capitalization value of said security index (claim 7) in order to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

Regarding claim 8, Ciampi does not explicitly disclose that said current index market capitalization process includes an index market capitalization process, responsive to said discrete security market capitalization process, for summing each

said discrete market capitalization value to determine said current index market capitalization value for said security index; however, as seen in ¶ 14 of E*Commerce Index (cited above), the current valuation of the index is based on each stock's closing price on the rebalancing date. Also, "market capitalization," by definition, is a measurement of corporate or economic size equal to the stock price times the number of shares outstanding of a public company. Therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi such that said current index market capitalization process includes an index market capitalization process, responsive to said discrete security market capitalization process, for summing each said discrete market capitalization value to determine said current index market capitalization value for said security index (claim 8) in order to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

Regarding claim 9, Ciampi does not explicitly disclose that said closing price variation calculation process includes a market capitalization comparison process for comparing said closing index market capitalization value and said current index market capitalization value to calculate said predicated opening index price of said security index; however, the Ciampi-E*Commerce Index combination discussed above addresses the market capitalization process. Furthermore, Ciampi uses an index valuation to predict opening index price of a security index, such as Nasdaq 100 or S&P 500 (which are both examples of market capitalization weighted indexes) (col. 6, lines 5-67; col. 7, lines 30-38; col. 8, line 32 though col. 11, line 33; claim 8 of Ciampi);

therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi such that said closing price variation calculation process includes a market capitalization comparison process for comparing said closing index market capitalization value and said current index market capitalization value to calculate said predicated opening index price of said security index (claim 9) in order to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

[Claims 20-24] Claims 20-24 recite limitations already addressed by the rejection of claims 1-9 and 15 above; therefore, the same rejection applies.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Definition of "Market Capitalization" from [URL:

http://en.wikipedia.org/wiki/Market_capitalization] retrieved on July 19, 2007 – Defines "Market Capitalization" as "a measurement of corporate or economic size equal to the stock price times the number of shares outstanding of a public company."

"SEC Provides Guidance on Investment Company Portfolio Valuation." Journal of Investment Compliance, vol. 2, no. 1, page 31, June 2001 – Discusses the pricing policy of basing the value of a security on its last trade activity. Also discussed are how after-hour trading events (e.g., trading in foreign exchanges) affect the value of a security.

Downes et al. Dictionary of Finance and Investment Terms. Barron's Educational Series, Inc., Definition of "Market Capitalization" (pages 323-324), © 1995 – Defines "Market Capitalization" as the "value of a corporation as determined by the market price of its issued and outstanding common stock. It is calculated by multiplying the number of outstanding shares by the current market price of a share. Institutional investors often use market capitalization as one investment criterion, requiring, for example, that a company have a market capitalization of \$100 million or more to qualify as an investment. Analysts look at market capitalization in relation to book, or accounting, value for an indication of how investors value a company's future prospects."

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susanna M. Diaz whose telephone number is (571) 272-6733. The examiner can normally be reached on Monday-Friday, 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Abdi can be reached on (571) 272-6702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Susanna M. Diaz/
Primary Examiner, Art Unit 3692